



# Investment in Adaptation in the Developing World

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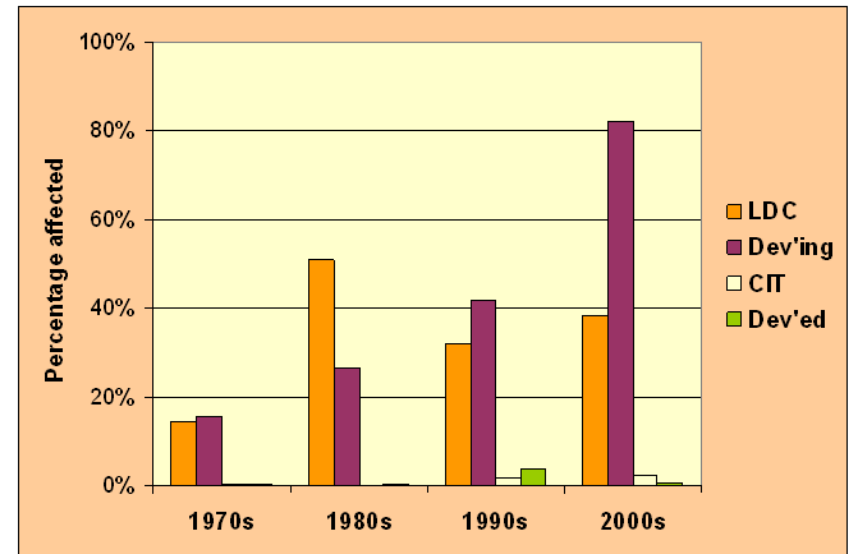
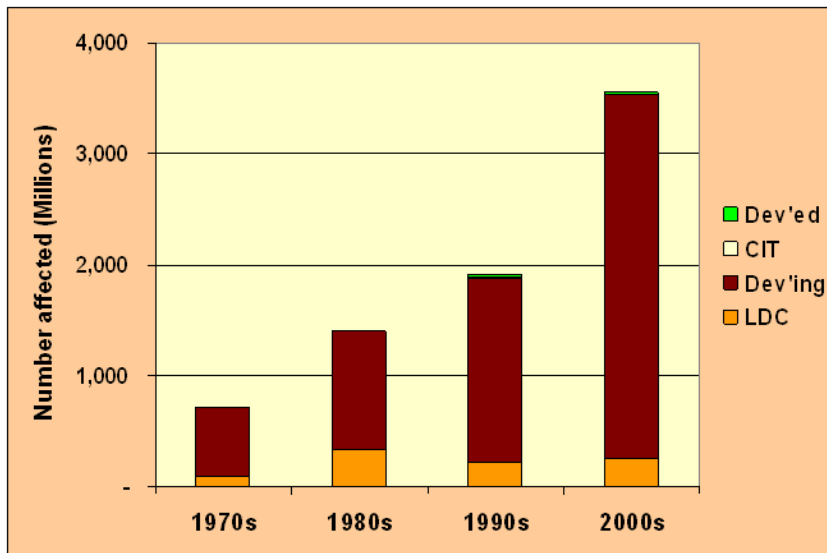
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# The poor will face the greatest challenges from climate change.

2 Billion people in developing countries affected by a climate related disaster in the 1990s.

Double in the 2000s?



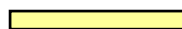
A person in a developing country is 50 times more likely to be affected by a climate related disaster than a person in a developed country



# The Adaptation Challenge

Poor countries and communities are already highly vulnerable to variability in climate. They will suffer most from adverse impacts of climate change.

<i>Drought</i>	<i>Flood</i>	<i>Storm</i>	<i>Coastal 1m</i>	<i>Coastal 5m</i>	<i>Agriculture</i>
Malawi	Bangladesh	Philippines	All low-lying Island States	All low-lying Island States	Sudan
Ethiopia	China	Bangladesh	Vietnam	Netherlands	Senegal
Zimbabwe	India	Madagascar	Egypt	Japan	Zimbabwe
India	Cambodia	Vietnam	Tunisia	Bangladesh	Mali
Mozambique	Mozambique	Moldova	Indonesia	Philippines	Zambia
Niger	Laos	Mongolia	Mauritania	Egypt	Morocco
Mauritania	Pakistan	Haiti	China	Brazil	Niger
Eritrea	Sri Lanka	Samoa	Mexico	Venezuela	India
Sudan	Thailand	Tonga	Myanmar	Senegal	Malawi
Chad	Vietnam	China	Bangladesh	Fiji	Algeria
Kenya	Benin	Honduras	Senegal	Vietnam	Ethiopia
Iran	Rwanda	Fiji	Libya	Denmark	Pakistan



Low Income



Middle Income

Source: World Bank



## How much investment is needed to promote low carbon trajectories in developing countries?

- IEA - Globally \$100 to \$200 billion investment per year
- Developing countries - \$30 to \$40 billion per year
- UNFCCC - \$200 billion incremental investment flow in 2030 with about half in developing countries

# How much is needed for adaptation?

Study	Date released	Estimate US\$ billions/ a	Basis
Same order as for mitigation			
Various Academic	1990s on	Various	Usually sectoral and long term – e.g. end of century – and with widely differing assumptions
CEIF	04/2006	4 – 8 9 - 41	Investment to ‘climate proof’ ODA and concessional finance – near term As above but for all adaptation related activities in developing countries
Stern Review	11/2006	1 -4 4 - 37	Revision of CEIF estimates done in cooperation with WBG
IPCC	4/2007		No new estimates, but argue that most studies show a high benefit-cost ration for adaptive actions
Oxfam	5/2007	>50 8 - 33	Revision of CEIF calculations Costs (not annual) of immediate priorities similar to those in NAPAs applied to all developing countries
UNFCCC	10/2007	28 - 67	Investment needs for adaptation activities in 2030 – all sectors, private and public
IDA Replenishment	11/2007	0.6 - 1.9	Increment in IDA resources to offset the effects of climate change (6% to 21% based on Stern Review)



## Existing Instruments for Adaptation

- GEF Trust Fund Strategic Priority on Adaptation - \$50M (complete)
- GEF Voluntary Funds: c. \$300M
  - Special Climate Change Fund
  - Least Developed Countries Fund
- Adaptation Fund could reach:
  - \$100-500 million through 2012
  - and could increase to \$2 billion per year after 2012
- Bilateral donors providing additional resources through EC, UN Agencies and directly to developing countries (few \$100Ms through to 2012)
- IDA – significant increase partly to cope with climate change (\$100s millions)

What is available is more than an order of magnitude too small





## The Adaptation Fund

- Regarded as the prime UNFCCC mechanism although actually under Kyoto Protocol
- Funded by 2% tax on most CDM transactions and possibly voluntary contributions
- Currently only c. \$100 million – eventually \$1 billion per year??
- Governed by a Board with a strong developing country majority
- To fund “concrete adaptation activities” - many small projects





# Suggested Instruments for Adaptation/Mitigation Funding

- Principles
  - New and additional to existing ODA funding
    - Should it be countable as ODA?
  - Predictable & equitable
  - Adequate
  - Multiple streams or a few super funds
    - Role of lending
  - What is to be supported?
    - “Agreed full incremental costs” of measures (Art 4.3)
- Suggestions
  - *CDM levy* (\$1B)
  - Global GDP levy (\$46B)
  - Global carbon tax (\$14B)
  - Auctioning of allowances (\$2B)
  - Hybrid schemes (\$2B)
  - Levies on (e.g.) airfares; bunker fuels; etc (\$1B to \$15B)







# Proposed Pilot Program for Climate Resilience

- An urgent need to go beyond assessments and relatively small scale project by project approaches
  - Community level action will be the main driver of adaptive change, but it must have a supporting framework if it is to be inclusive and effective
- About \$500 million to move to scale in 5 to 10 pilot countries
  - To explore practical ways to integrate climate resilience into core development planning and budgeting
  - Build on National Adaptation Programs of Action (NAPAs)
  - How can we build North - South and South – South collaborations?



# How much does ODA matter for adaptation?

- Recall ODA is \$1/month/person
- Even most optimistic flows to adaptation would be only \$1 per person per year

